(d) what is the percentage of national expenditure on R & D allocated to the universities in 1991, 1992, 1993 and 1994; and

(e) what is the number of scientific and technical persons registered with the employment exchanges and the estimated number not registered but unemployed each year from 1991 to 1994 ?

THE MINISTER OF STATE IN PRIME MINISTER'S OFFICE AND MINISTER OF STATE IN DEPARTMENTS OF ATOMIC ENERGY AND SPACE AND MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI BHUVNESH CHATURVEDI) : (a) the percentage growth of the expenditure on R & D at constant prices from 1990-91 to 1992-93 was 1.5%;

(b) the expenditure on R & D as a percentage of GNP during the years 1990-91, 1991-92 and 1992-93 was 0.85%, 0.84% and 0.83% respectively;

(c) the share of national R&D expenditure by Central Government, State Governments, public sector and private sector was **64.3%,** 9.3%, **11.4%** and 15% respectively during the year 1992-93;

(d) As reported by University Grants Commission, the R & D expenditure as per centage of national R&D expenditure during 1991-92, 1992-93 and 1993-94 was 1.89%, 1.43% and 1.55% respectively;

(e) the number of scientific and technical persons on the live register of employment exchanges maintained by the Directorate General of Employment & Training (Ministry of Labour) during 1990, 1991, 1992 were 890892, 949900 and 958300 respectively.

India's Entry Into Satellite launch Market

2717. SHRI KRISHNA KUMAR BIRLA : Will the PRIME MINISTER be •pleased to state :

(a) whether Government's attention has been drawn to the news-item captioned "India may enter satellite launch market" as reported in the Statesman dated the 16th October 1994;

(b) if so, whether Government have proposal to permit other countries to launch their satellite from Indian earth; and

(c) if so, tho details thereof ?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE AND MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTER OF STATE IN THE | DEPARTMENTS OF ATOMIC ENERGY I AND SPACE : (SHRI BHUVNESH I CHATURVEDI) : (a) Yes, Sir.

(b) and (c) Polar Satellite Launch Vehicle (PSLV) is in the developmental phase and will be ready for operational launch services both for internal needs and on commercial basis after the next successful developmental flight. P3LV can launch remote sensing satel. lites as well as low earth satellites for communication.

Involvement of International Spy network in the ISRO Espionage

2718. DR. BAPU KALADATE :
SHRIMATI KAMLA SINHA :
SHRI S. S. AHLUWALIA :

Will the PRIME MINISTER be pleased to state :

(a) whether it is a fact that an international
, spy network engaged in ferreting out confiden tial data, drawings and other informations about development in the field of space technology from Indian Space Research Orga nisation (ISRO) has come to light;

(b) if so, the details thereof ;

(c) whether it is a fact that involvement of several scientists of ISRO, besides a section of Police officials and members of trade and industry, in the spy network have been detec ted prima facie;

(d) if so, the levels of scientists and those of the Police officers ;

(e) the details of over-all security arrangements in vogue in ISRO and in the Atomic Research Centres for prevention of spying and espionage as well as for security of confidential data therein;

(f) the details of the measures taken to retrieve the situation from the damage inflicted upon India's space technology and missiles technology programmes; and

(g) whether CBI has been entrusted with the task of investigation into the spy network, if so, when, and the date when the spy activity was first exposed ?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE AND MINISTER OF STATE IN THE MINIS TRY OF SCIENCE AND TECHNOLOGY AND MINISTER OF STATE IN THE DEPARTMENTS OF ATOMIC ENERGY AND SPACE (SHRI BHUVNESH CHA TURVEDI) : (a) to (c) Duirng investigation? of a case in Thiruvananthapuram under Foreigners Orders 1948 read with Foreigners Act 1946 against a foreign n <> over-staying in India, th; Police authorities discovered evidence indicating some links between the said foreign national and a scientist of Liquid Propulsion Systems Centre, Thiru-vapanthapurara, one of the Centres of Indian Space Research Organisation (ISRO). It was suspected that certain classified documents of ISRO hr.s beep leaked out to tbe foreigner. Therefore, a case, g/as registered under Sections 3 & 4 of the Official Secrets Act 1923, read with Section 34 of Indian Penal Code (IPC). Following the registration of this case, 6 persons including 2 Scientists of ISRO, 2 foreigners and 2 businessmen were arrested, been entrusted by Government of India to the Central Bureau of Investigation (CBI) on the request of, Government of Kerala and the same has been registered by the CBI under RC-10(S)/94— SIU (V)/SIC-II New Delhi under Section 7 of Foreigners Orders 1948 read with Section 14 of Foreigners Act 1946 and RC 11 (S)/94-S1U-V/SIC. n under Sections 3, & 5 of Official Secrets Act, 1923 read with section 34 of IPC. AH the six accused are in custody and the cases are under investigation. The two Scientists have been placed under deemed suspension.

(d) The Scientists arrested are Shri D. Sasikuraaran, Scientists/Engineer 'G' (Rs. 5900—6700) and S'iri S. Nambinarayanan, Scientist/Engineer 'IT' (Rs. 5900—7300) No. police officer is reported to have been arrested.

(e) Security Instructions issued by Government are adopted for the safety and security of secret documents in ISRO and Department of Atomic Energy (DAE). Review of the existing mechanisms for security in the different Centres and Units of Department of Space/ISRO has been initiated to strengthen the security measures.

(f) No damage on India's Space technology and missiles technology programmes is expected.

(g) The case started on 20-10-1994 when the Kerala Police registered a case for overstay of a foreign national to which a case under the Official Secrets Act, 1923 was added. The CBI took over the case on 3-12-1994.

Achievements of Space Research

2719. SHRI TINDIVANAM G. VENKATRAMAN : Will the PRIME MINISTER be pleaded to state:

(a) What are the achievements of Space research and technology for peaceful purpose;

(b) the total amount spent thereon; and;

(c) the details of progress in different fields where developments have come through in India ?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE AND MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTER OF STATE IN THE DEPARTMENTS OF ATOMIC ENERGY AND SPACE. (SHRI BHUVNESH CHATUR VEDI) : (a) India has an impressive array of achievements in the areas of space research and technology development for peaceful purposes through;

(i) establishment of operational space-based services in a self reliant manner for telecommunication, TV broadcasting, developmental education, meteorological applications, disaster management, management of natural resources, environmental monitoring etc.;

(ii) development and operationalisa-tion of indigenous satellites, laundn vehicles and ground infrastructure required for the above.

(b) Ths total amount spent on space research an '. development till the end of 1993-94 isRs.46S^{Q} 40crores.

(c) The Indian space programme began with the establishment of Thumba Equatorial Rocket Launching Station (TERLS) **in 1962**